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Comp. Star.	Mean R.A.	Red. to App. R.A.	Mean N.P.D.	Red. to App. N.P.D.	Authorities.
	h m s	s	° ′ ″	″	
121	1 37 39·43	+1·07	140 32 53·5	+10·1	Argent. Gen. Cat. 1665; Stone, 677.
122	1 42 47·67	+1·10	140 35 32·0	+10·1	Argent. Gen. Cat. 1746.
123	1 46 59·49	+1·13	140 42 22·2	+10·2	Argent. Gen. Cat. 1816; Stone, 738.
124	1 40 45	+1·07	140 0	+10·0	Equatorial. 9 mag. = Cape Phot. Durch. −50°.239.
125	2 1 34	+0·93	131 39	+ 8·7	Equatorial. 8½ mag. = Cape Phot. Durch. −41°.192.
126	1 58 55·17	+0·88	130 35 47·2	+ 8·3	Argent. Gen. Cat. 2046.
127	1 59 6·29	+0·88	130 36 37·5	+ 8·3	Argent. Gen. Cat. 2053.
128	2 2 1·85	+0·88	130 1 13·8	+ 8·3	Argent. Gen. Cat. 2110; Stone, 835.
129	2 15 16·63	+0·94	129 26 29·7	+ 8·5	Argent. Gen. Cat. 2377; Stone, 926.
130	2 16 33·02	+0·95	129 29 42·9	+ 8·5	Argent. Gen. Cat. 2406.
131	2 19 55·46	+0·92	127 47 19·4	+ 8·2	Argent. Gen. Cat. 2485.
132	2 20 16·61	+0·92	127 49 2·7	+ 8·2	Argent. Gen. Cat. 2489; Stone, 959.
133	2 20 45·63	+0·88	126 20 24·2	+ 7·8	Argent. Gen. Cat. 2506.
134	2 16 13·74	+0·85	125 34 28·2	+ 7·5	Argent. Gen. Cat. 2399.
135	2 23 45·21	+0·84	124 15 49·5	+ 7·3	Argent. Gen. Cat. 2565; Stone, 981; Radcliffe, 1890, 577.
136	2 25 57·75	+0·84	123 33 26·3	+ 7·2	Argent. Gen. Cat. 2617; Stone, 999.
137	2 27 53·28	+0·84	123 3 8·7	+ 7·1	Yarnall$_3$ 1165; Argent. Gen. Cat. 2657.

Observatory: Peninsula, Windsor,
New South Wales, 1899 *Feb.* 27.

Observation of Tuttle's Comet (*b* 1899) *made with the* 30-*inch Reflector of the Thompson Equatorial at the Royal Observatory, Greenwich.*

(*Communicated by the Astronomer Royal.*)

On March 14 a photograph of *Tuttle's* Periodical Comet was obtained with the 30-inch reflector, with exposures of 10$^{\text{m}}$ and 6$^{\text{m}}$. The positions of the comet and of eight comparison stars, as shown by the 10$^{\text{m}}$ exposure, were measured, and the following place of the comet was obtained:—

Date.	G.M.T.	Apparent R.A.	Apparent Decl.	Log Δ.	Corr. for Parallax R.A.	Corr. for Parallax Decl.
d	h m s	h m s	° ′ ″		s	″
Mar. 14	7 37 17	1 50 19·23	+29 31 41·4	0·2480	+0·24	+3·1

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Observations of Planet Eros from Photographs taken with the 30-inch Reflector of the Thompson Equatorial at the Royal Observatory, Greenwich.

(*Communicated by the Astronomer Royal.*)

Photographs of planet *Eros*, on which the position of the planet is shown with sufficient distinctness for accurate measurement, have been obtained with the 30-inch reflector on twenty-four nights between 1898 September 20 and 1899 March 31. Ilford "special rapid" plates were used, and the exposure usually given was five or six minutes. On twelve nights two exposures were made on the same plate, and on six nights two separate plates were obtained. On two nights (February 28 and March 14) short exposures of 40 seconds were also given, in order to obtain smaller images of the "reference stars" for use in determining the plate constants. In the later photographs the electric hand control was used to correct the large motion of the planet in right ascension, as the trail of the planet was too faint to be distinctly measurable when the equatorial was driven at a sidereal rate.

Réseaux have been printed on all the photographs except those taken on September 20, 21, 23, and October 3, and rectangular coordinates of the planet and of the reference stars have been measured in exactly the same way as for the astrographic photographs. The positions of the reference stars have been derived when possible from the catalogues of the *Astronomische Gesellschaft*, those between 5° and 15° N. having been kindly supplied in manuscript by Dr. Bruns, the Director of the Leipzig Observatory, and those south of the Equator from the Ottakring Zone Observations for *A.G.C.*, the Karlsruhe Observations, the Radcliffe Catalogue, 1890, and Schjellerup's Catalogue for 1865.

The images of the stars at some distance from the centre of the field show considerable *coma* away from the centre. This introduces some uncertainty as to the position of the optical centre of the images, and it was therefore necessary to examine the distortion of the field. For this purpose a plate was exposed four times on the *Pleiades* showing two lines of stars in the directions of the diagonals with displacement between, so that a star at the corner of the plate for one exposure was brought to the centre of the plate for another, and conversely, as indicated in the diagram, and the distances between the two images of a number of stars nearly in the same straight line were measured. These measures showed that, though there might be a distortion amounting to 2″ at a distance of 1° from the centre, the different magnitudes of the stars and consequent difference in the

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